



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,855	09/22/2005	Frank-Juergen Stuetzler	10191/4147	4192
26646	7590	06/22/2006	EXAMINER	
KENYON & KENYON LLP ONE BROADWAY NEW YORK, NY 10004			LUU, MATTHEW	
			ART UNIT	PAPER NUMBER
			3663	

DATE MAILED: 06/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/528,855	STUETZLER, FRANK-JUERGEN	
	Examiner	Art Unit	
	LUU MATTHEW	3663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/23/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 5-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 5, line 4 “specific derived signals”, the specification fails to disclose what exactly are the “specific derived signals”. It is unclear how exactly these “specific signals” can be derived from acceleration sensor and upfront sensors. It is unclear whether these “specific derived signals” can be obtained from at least one of the upfront sensors or two of the upfront sensors.

Claim 5, lines 11-13, the specification fails to disclose “first and second stages of the two-stage restraint device are triggered if the signal of the acceleration sensor exceeds the threshold values associated with the upfront sensors”.

Regarding claim 6, the specification fails to disclose what exactly are the velocity signals. Are there more than one velocity signals?

Regarding claim 7, it is unclear what exactly are the “velocity-like signals”.

Dependent claims 6 and 7 are considered rejected for incorporating the defects from their respective parent claim 5 by dependency.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Claim 5, line 3, “a plurality of upfront sensor” should be a plurality of upfront sensors since line 5 recites “upfront sensors”.

Claim 5, line 4 recites “specific derived signals”. However, line 6 recites “as a function of the signal”. Therefore, it is unclear whether or not “the signal” is the claimed “specific derived signals”.

Claim 5, line 8 recites “a maximum of the signals”. However, it is unclear whether or not “the signals” are the claimed “specific derived signals”. What exactly is “a maximum of the signals”?

Claim 5, line 11 recites “the signal”. However, it is unclear whether or not “the signals” are the claimed “specific derived signals”.

Claim 5, lines 8-9 recites “the control unit uses a maximum of the signals of the upfront sensors for changing the respective thresholds”, and lines 14-15 recites “the threshold values associated with the upfront sensors are changed as a function of the

Art Unit: 3663

maximum". It is unclear which one of the two velocities of the left and right upfront sensors is at a maximum.

Regarding claim 7, the phrase "the velocity-like signals" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "or the like"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d). It is unclear what exactly is the velocity-like signals"

Dependent claims 6 and 7 are considered rejected for incorporating the defects from their respective parent claim 5 by dependency.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5-6, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Foo et al (6,186,539) in view of Fujita et al (6,347,268) or Wang (6,496,764).

Regarding claim 5, Foo discloses (Figs. 1 and 2) a device for triggering a restraint device (12):

Art Unit: 3663

a control unit (controller 22) for placement in a central location in a vehicle (11) having at least one acceleration sensor (14, 16) and a plurality of upfront sensors (17, 19, and 21), wherein:

the control unit (22) triggers the restraint device (12) if specific derived signals (crash acceleration signals, 44, 45, 47 and 49) exceed specific thresholds,

the restraint device (12) includes a two-stage device,

first and second stages (24 and 26) of the two-stage restraint device (12) are triggered if the signal of the acceleration sensor (14, 16) exceeds the threshold values associated with the upfront sensors (17 and 19). See column 2, line 3 to column 3, line 64; column 4, line 49 to column 5, line 63.

Foo further discloses (Fig. 12A) in step (318), the threshold values (124) and (132) are adjusted if necessary in response to the monitored side impact (Column 22, lines 39-54).

Foo fails to disclose the control unit changes or adjusts the thresholds as a function of the signal of at least one of the upfront sensors (17 and 19).

However, Fujita discloses (Figs. 2 and 3) changing the thresholds as a function of the signal of at least one of the upfront sensors (satellite sensors 30). See the Abstract and column 12, lines 13-25.

Therefore, it would have been obvious to a person of ordinary skill in the art to use the upfront sensors for changing the thresholds of Fujita into the device for

Art Unit: 3663

triggering a restraint device (12) of Foo to activate the air bags in case of a head on collision.

Wang (6,496,764), on the other hand, also discloses (Figs. 1 and 2) the maximum value of the velocity changes at the remote accelerometer (12) is used to compare with the thresholds (Th1, Th2) for deployment of the air bags. See column 2, lines 29-38; and column 6, lines 54-64.

Therefore, it would have been obvious to the person of ordinary skill in the art to use the remote accelerometer (12) of Wang into the device for triggering a restraint device (12) of Foo to provide an early warning signal for the deployment of the air bags in case of a head on collision.

Regarding claim 6, Wang discloses (Figs. 1 and 2) the maximum value of the velocity changes at the remote accelerometer (12) is used to compare with the thresholds (Th1, Th2) for deployment of the air bags. See column 2, lines 29-38; and column 6, lines 54-64.

Claim Rejections - 35 USC § 103

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Foo et al in view of Fujita or Wang, as applied to claim 5 above, and further in view of Liu et al (5,801,619).

Art Unit: 3663

Regarding claim 7, Foo further discloses a low pass filter (LPF 42) being used for filtering the signal (18) of the acceleration sensor (14).

Foo fails to teach that the LPF (42) is with an upper limit frequency of up to 100 Hz.

However, Liu discloses (Fig. 3) a LPF (164) being used in an air bags deployment device with a cut off frequency of 100 Hz.

Therefore, it would have been obvious to the person of ordinary skill in the art to use the low pass filter (LPF) of 100 Hz cut off frequency, as taught by Liu, for the LPF of Foo to remove the road noise signal from the crash discrimination signal. Furthermore, it is well known in the art to use a low pass filter (LPF) of 100 Hz cut off frequency.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Dalum (6,430,489) discloses a restraint deployment control, wherein the deployment threshold is adaptively adjusted based on the magnitude and rate of change of a filtered acceleration signal (See Abstract).

-Bentele-Calvoer et al (US 2003/0160436) discloses a method of triggering at least one airbag in a vehicle.

Art Unit: 3663

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUU MATTHEW whose telephone number is (571) 272-7663. The examiner can normally be reached on Flexible Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JACK KEITH can be reached on (571) 272-7663. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

M. Luu

A handwritten signature in black ink, appearing to read 'Matthew Luu', with a large, sweeping initial 'M'.

**MATTHEW LUU
PRIMARY EXAMINER**